#### Search Results -

Terms	Documents
L2 and terminal adj his adj tag	4

US Pre-Grant Publication Full-Text Database US Patents Full-Text Database

US OCR Full-Text Database

Database:

EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

L8	Refine Search





## **Search History**

DATE: Tuesday, March 30, 2004 Printable Copy Create Case

<u>Set Name</u>	Query	Hit Count	Set Name
side by side			result set
DB=US	SPT; PLUR=YES; OP=AND		
<u>L8</u>	12 and terminal adj his adj tag	4	<u>L8</u>
<u>L7</u>	shiga adj toxin adj type adj 2	3	<u>L7</u>
<u>L6</u>	L5 and shiga	5	<u>L6</u>
<u>L5</u>	stx2	8	<u>L5</u>
<u>L4</u>	shiga adj toxin adj 2	4	<u>L4</u>
<u>L3</u>	12 and shiga adj toxin adj II	0	<u>L3</u>
<u>L2</u>	shiga adj toxin	290	<u>L2</u>
<u>L1</u>	stx2e	2	<u>L1</u>

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 6703233 B1

L1: Entry 1 of 2

File: USPT

Mar 9, 2004

US-PAT-NO: 6703233

DOCUMENT-IDENTIFIER: US 6703233 B1

TITLE: Plasmid maintenance system for antigen delivery

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Galen; James E.

Owings Mills

MD

US-CL-CURRENT: 435/252.3; 435/243, 435/320.1, 435/325, 435/69.1, 536/23.1, 536/24.1

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw De

☐ 2. Document ID: US 6413768 B1

L1: Entry 2 of 2

File: USPT

Jul 2, 2002

US-PAT-NO: 6413768

DOCUMENT-IDENTIFIER: US 6413768 B1

TITLE: Expression plasmids

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Galen; James E.

Owings Mills

MD

US-CL-CURRENT: 435/320.1; 530/300, 530/350, 530/403, 536/24.1

Full Title Citation Front Review Classification Date Reference Sequences Attachinents Claims KWC Draw. Do

Terms	Documents	
stx2e	2	

Change Format . .-Display Format: CIT

Go to Doc# Previous Page Next Page

# First Hit Fwd Refs End of Result Set

# Generate Collection Print

L1: Entry 2 of 2

File: USPT

Jul 2, 2002

US-PAT-NO: 6413768

DOCUMENT-IDENTIFIER: US 6413768 B1

TITLE: Expression plasmids

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Galen; James E. Owings Mills MD

US-CL-CURRENT: 435/320.1; 530/300, 530/350, 530/403, 536/24.1

CLAIMS:

What is claimed is:

1. An expression plasmid comprising:

a restricted-copy-number origin of replication, wherein the expression plasmid is limited to a copy number from about 2 to 75 copies per cell and wherein the origin of replication has transcriptional terminators at the 5' and 3' end of said origin of replication such that said origin of replication is isolated from transcription beginning outside of the origin of replication;

a selection marker;

a post-segregational killing system; and

an inducible promoter linked to a heterologous antigen coding sequence, wherein the inducible promoter is an ompC promoter (SEQ ID NO: 1, from 7 to 464).

- 2. The expression plasmid of claim 1, wherein the origin of replication is selected from the group consisting oriE1 (SEQ ID NO: 1 (from 1251 to 1932)), ori15A (SEQ ID NO: 2 (from 1251 to 1899)), or ori101 (SEQ ID NO: 3 (from 1251 to 3196)).
- 3. The expression plasmid of claim 1, wherein the transcriptional terminator comprises SEQ ID NO:1 (from 1954 to 2374).
- 4. The expression plasmid of claim 1, wherein the transcriptional terminator comprises SEQ ID NO:1 (from 1215 to 1251).
- 5. The expression plasmid of claim 1, wherein the selection marker is the tetA resistance gene (SEQ ID NO:1 from 3591 to 2403).

- 6. The expression plasmid of claim 1, wherein the post-segregational killing system consists of hok-sok (SEQ ID NO:1 (from 3612 to 4196)).
- 7. The expression plasmid of claim 1, wherein the plasmid comprises SEQ ID NO: 1.
- 8. The expression plasmid of claim 1, wherein the heterologous antigen coding sequence encodes a detoxified Shiga toxin comprising a mutated segment of amino acids comprising SEQ ID NO: 4.
- 9. The expression plasmid of claim 1, wherein the heterologous antigen coding sequence encodes a detoxified Shiga toxin comprising a mutated segment of amino acids comprising SEQ ID NO: 5.
- 10. The expression plasmid of claim 1, wherein the heterologous antigen coding sequence encodes a detoxified Shiga toxin comprising a mutated segment of amino acids comprising SEQ ID NO: 6.
- 11. The expression plasmid of claim 1, wherein the heterologous antigen coding sequence encodes a detoxified Shiga toxin comprising a mutated segment of amino acids comprising SEQ ID NO: 7.
- 12. The expression plasmid of claim 1, further comprising a partitioning system.
- 13. The expression plasmid of claim 1, wherein the partitioning system comprises par (SEQ ID NO: 3 (from 2824 to 3196).

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 4 of 4 returned.

☐ 1. Document ID: US 6703233 B1

L4: Entry 1 of 4

File: USPT

Mar 9, 2004

US-PAT-NO: 6703233

DOCUMENT-IDENTIFIER: US 6703233 B1

TITLE: Plasmid maintenance system for antigen delivery

DATE-ISSUED: March 9, 2004

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Galen; James E. Owings Mills MD

 $\text{US-CL-CURRENT: } \underline{435}/\underline{252.3}; \ \underline{435}/\underline{243}, \ \underline{435}/\underline{320.1}, \ \underline{435}/\underline{325}, \ \underline{435}/\underline{69.1}, \ \underline{536}/\underline{23.1}, \ \underline{536}/\underline{24.1}$ 



☐ 2. Document ID: US 6537802 B1

L4: Entry 2 of 4

File: USPT

Mar 25, 2003

US-PAT-NO: 6537802

DOCUMENT-IDENTIFIER: US 6537802 B1

TITLE: Method and apparatus for the detection of volatile products in a sample

DATE-ISSUED: March 25, 2003

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY

Alocilja; Evangelyn C. East Lansing MI
Marquie; Steve A. East Lansing MI
Meeusen; Cynthia Lansing MI
Younts; Spring M. Lincoln NE
Grooms; Daniel L. Williamston MI

US-CL-CURRENT: 435/287.5; 422/90, 435/34, 435/807, 436/149

☐ 3. Document ID: US 6413768 B1

L4: Entry 3 of 4

File: USPT

Jul 2, 2002

US-PAT-NO: 6413768

DOCUMENT-IDENTIFIER: US 6413768 B1

TITLE: Expression plasmids

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

ZIP CODE

COUNTRY

COUNTRY

Galen; James E.

Owings Mills

MD

US-CL-CURRENT: 435/320.1; 530/300, 530/350, 530/403, 536/24.1

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWIC Draw Do

4. Document ID: US 6365723 B1

L4: Entry 4 of 4 File: USPT Apr 2, 2002

US-PAT-NO: 6365723

DOCUMENT-IDENTIFIER: US 6365723 B1

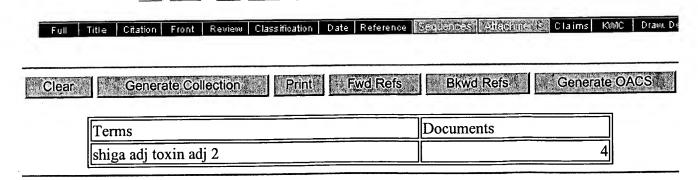
TITLE: Sequences of E. coli 0157

DATE-ISSUED: April 2, 2002

INVENTOR-INFORMATION:

STATE CITY NAME WI Madison Blattner; Frederick R. Cross Plains WI Burland; Valerie WI Madison Perna; Nicole T. WI Plunkett; Guy Madison Madison WI Welch; Rod

US-CL-CURRENT: 536/23.1; 536/24.3, 536/24.31, 536/24.32, 536/24.33



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#### Search Results -

Terms	Documents
shiga adj toxin adj 2	4

US Pre-Grant Publication Full-Text Database

US Patents Full-Text Database
US OCR Full-Text Database

Database:

EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:







#### **Search History**

DATE: Tuesday, March 30, 2004 Printable Copy Create Case

Set Name Query side by side

**Hit Count Set Name** 

result set

DB=USPT; PLUR=YES; OP=AND

 L4
 shiga adj toxin adj 2
 4
 L4

 L3
 12 and shiga adj toxin adj II
 0
 L3

 L2
 shiga adj toxin
 290
 L2

L1 stx2e

2 L1

Clear Generate Collection Print Fwd Refs Bkwd Refs
Generate OACS

Search Results - Record(s) 1 through 5 of 5 returned.

☐ 1. Document ID: US 6703233 B1

L6: Entry 1 of 5

File: USPT

Mar 9, 2004

US-PAT-NO: 6703233

DOCUMENT-IDENTIFIER: US 6703233 B1

TITLE: Plasmid maintenance system for antigen delivery

DATE-ISSUED: March 9, 2004

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Galen; James E.

Owings Mills

MD

US-CL-CURRENT: 435/252.3; 435/243, 435/320.1, 435/325, 435/69.1, 536/23.1, 536/24.1

Full Title Citation Front Review Classification Date Reference Securities Attachments: Claims KMC Draw. Dr

2. Document ID: US 6635259 B2

L6: Entry 2 of 5

File: USPT

Oct 21, 2003

US-PAT-NO: 6635259

DOCUMENT-IDENTIFIER: US 6635259 B2

TITLE: Escherichia coli secreted protein B

DATE-ISSUED: October 21, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Kaper; James B.

Pasadena

MD

Jarvis; Karen

Arnold

MD

US-CL-CURRENT:  $\frac{424}{241.1}$ ;  $\frac{424}{185.1}$ ,  $\frac{424}{190.1}$ ,  $\frac{435}{6}$ ,  $\frac{435}{7.1}$ ,  $\frac{435}{7.2}$ ,  $\frac{435}{7.32}$ ,  $\frac{435}{7.37}$ ,  $\frac{530}{350}$ ,  $\frac{530}{402}$ 

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw. De

☐ 3. Document ID: US 6413768 B1

L6: Entry 3 of 5

File: USPT

Jul 2, 2002

US-PAT-NO: 6413768

DOCUMENT-IDENTIFIER: US 6413768 B1

TITLE: Expression plasmids

DATE-ISSUED: July 2, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

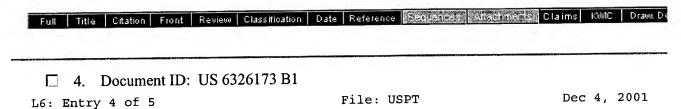
COUNTRY

Galen; James E.

Owings Mills

MD

US-CL-CURRENT: 435/320.1; 530/300, 530/350, 530/403, 536/24.1



US-PAT-NO: 6326173

DOCUMENT-IDENTIFIER: US 6326173 B1

TITLE: Electronically mediated nucleic acid amplification in NASBA

DATE-ISSUED: December 4, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Edman; Carl F.

San Diego

CA

Nerenberg; Michael I.

La Jolla

CA

US-CL-CURRENT: 435/91.1; 436/6, 536/22.1, 536/23.1

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	<b>State Intents</b>	Claims	KMC	Draw, D
		<u> </u>										
	5.	Docume	nt ID:	US 62	04004 B1							

US-PAT-NO: 6204004

DOCUMENT-IDENTIFIER: US 6204004 B1

TITLE: Immunodiagnostic test for enterohemorrhagic Escherichia coli infection

DATE-ISSUED: March 20, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Kaper; James B.

Pasadena

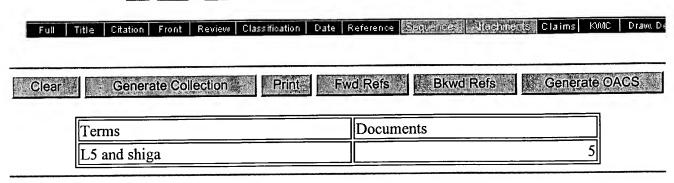
MD

Jarvis; Karen

Arnold

MD

US-CL-CURRENT:  $\frac{435}{7.37}$ ;  $\frac{435}{6}$ ,  $\frac{435}{7.32}$ ,  $\frac{530}{402}$ ,  $\frac{536}{23.1}$ 



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#### Search Results -

Terms	Documents
L5 and shiga	5

US Pre-Grant Publication Full-Text Database

US Patents Full-Text Database US OCR Full-Text Database

Database:

**EPO Abstracts Database** JPO Abstracts Database Derwent World Patents Index IBM Technical Disclosure Bulletins

Search:

L6	Refine Search
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#### **Search History**

DATE: Tuesday, March 30, 2004 Printable Copy Create Case

**Hit Count Set Name Set Name Query** side by side

result set

DB=USPT: PLUR=YES: OP=AND

DD	Obi 1, I LOK 1Lb, OI 111D		
<u>L6</u>	L5 and shiga	5	<u>L6</u>
<u>L5</u>	stx2	8	<u>L5</u>
<u>L4</u>	shiga adj toxin adj 2	4	<u>L4</u>
<u>L3</u>	12 and shiga adj toxin adj II	0	<u>L3</u>
<u>L2</u>	shiga adj toxin	290	<u>L2</u>
L1	stx2e	2	L1

#### Search Results -

Terms	Documents
shiga adj toxin adj type adj 2	3

Database: |U

L7

US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

US Pre-Grant Publication Full-Text Database

Search:

	AND	Refine Search
Recall Text	Clear	Interrupt

## **Search History**

DATE: Tuesday, March 30, 2004 Printable Copy Create Case

Set Name side by side		Hit Coun	t <u>Set N</u> resul	
DB=USPT; PLUR=YES; OP=AND				
<u>L7</u>	shiga adj toxin adj type adj 2	3	3 <u>L</u>	7
<u>L6</u>	L5 and shiga	5	5 <u>L</u>	<u>6</u>
<u>L5</u>	stx2	8	3 <u>L</u>	<u>5</u>
<u>L4</u>	shiga adj toxin adj 2	4	4 <u>L</u>	4
<u>L3</u>	12 and shiga adj toxin adj II	(	) <u>L</u>	<u>3</u>
<u>L2</u>	shiga adj toxin	290	) <u>L</u>	2
<u>L1</u>	stx2e	2	2 <u>L</u>	1

Clear Generate Collection Print Fwd Refs Bkwd Refs Generate OACS

Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 6692732 B2

L7: Entry 1 of 3

File: USPT

Feb 17, 2004

US-PAT-NO: 6692732

DOCUMENT-IDENTIFIER: US 6692732 B2

TITLE: Ionic polymers as toxin-binding agents

DATE-ISSUED: February 17, 2004

INVENTOR-INFORMATION:

STATE ZIP CODE COUNTRY CITY NAME Marblehead MA Fitzpatrick; Richard MA Somerville Huval; Chad Cori MA Kurtz; Caroline Isabelle Bacon Sudbury Lynnfield MA Mandeville, III; W. Harry Cambridge MA Neenan; Thomas X.

US-CL-CURRENT: 424/78.08; 424/78.1, 424/78.12, 424/78.13, 424/78.14, 424/78.31, 424/78.33

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KMC | Draw. De

#### ☐ 2. Document ID: US 6290947 B1

L7: Entry 2 of 3

File: USPT

Sep 18, 2001

3/30/04

US-PAT-NO: 6290947

DOCUMENT-IDENTIFIER: US 6290947 B1

TITLE: Ionic polymers as toxin-binding agents

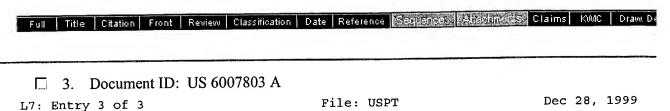
DATE-ISSUED: September 18, 2001

INVENTOR-INFORMATION:

NAME
CITY STATE ZIP CODE COUNTRY
Fitzpatrick; Richard
Marblehead
MA
Huwal: Chad Cori
Somerville
MA

Huval; Chad Cori Somerville MA
Bacon Kurtz; Caroline Isabelle Sudbury MA
Mandeville, III; W. Harry Lynnfield MA
Neenan; Thomas X. Cambridge MA

US-CL-CURRENT:  $\underline{424/78.08}$ ;  $\underline{424/78.1}$ ,  $\underline{424/78.12}$ ,  $\underline{424/78.13}$ ,  $\underline{424/78.14}$ ,  $\underline{424/78.31}$ , 424/78.33



US-PAT-NO: 6007803

DOCUMENT-IDENTIFIER: US 6007803 A

TITLE: Ionic polymers as toxin binding agents

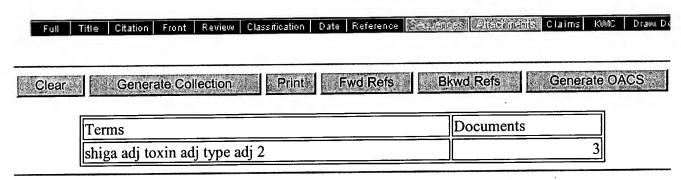
DATE-ISSUED: December 28, 1999

INVENTOR-INFORMATION:

ZIP CODE COUNTRY CITY STATE NAME

Lynnfield MA Mandeville, III; W. Harry Boston MA Neenan; Thomas X.

US-CL-CURRENT: 424/78.1; 424/78.12, 424/78.14, 424/78.15, 424/78.16



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